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09/705,562	11/02/2000	Mark A Gladden	020533.0330	6679

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EXAMINER	
JUNTIMA, NITTAYA	
ART UNIT	**PAPER NUMBER**
2663	3

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/705,562	Applicant(s) GLADDEN ET AL.	
	Examiner Nittaya Juntima	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-6,8-17,19-20,22-31,33-34,36-41* is/are rejected.

7)☒ Claim(s) *4,7,18,21,32 and 35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-2, 15, 21, 28-29, and 35 are objected to because of the following informalities:

- in claim 1, line 12, "is" should be added after "datagram;"
- in claim 2, line 6, "is" should be added in front of "approximately;"
- in claims 7, 21, and 35, line 5, "signal" should be added after "interrrupt," see pg. 11, ll 22-24;
- in claim 15, line 15, "is" should be added after "datagram;"
- in claim 28, line 15, "is" should be added after "datagram;"
- in claim 29, line 7, "is" should be added in front of "approximately;"

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-3, 5, 8-10, 12, 14, 16-17, 19, 22-24, 27-31, 33, 36-38,** and **41** are rejected under 35 U.S.C. 102(b) as being anticipated by Petersen (USPN 5,805,588).

Per **claims 1** and **28**, as shown in Figs. 5 and 17, Petersen teaches

a memory (TS store 56) for receiving ***samples*** (samples) of ***a first input signal*** (audio wave form from telephone set T1) corresponding to ***a first communication device*** (telephone set T1) and ***a second input signal*** (audio wave form from telephone set T3) corresponding to ***a second communication device*** (telephone set T3) (col. 7, ll 10-32 and col. 15, ll 1-7, 30-37, and 47-50),

a processor (a cell assembly multiplexor 58 coupled to TS store 56) operable to receive the samples from the memory (col. 15, ll 47-48), generate ***a first plurality of datagrams*** (micro cells) containing at least a portion of the samples of the first input signal (cells no. 1, belonging to telephone set T1 and containing sample(s) are generated by multiplexor 58 in each frame, col. 7, ll 28-32 and 38-42, Fig. 8, and col. 17, ll 5-8, 13-21, 24-26), generate ***a second datagram*** (cell no. 2 belonging to telephone set T3 in Fig. 5) containing a portion of the samples of the second input signal (cell no. 2 is generated by multiplexor 58, col. 7, ll 19-23 and col. 17, ll 5-8 and 13-21), the second datagram is staggered from each of the first plurality of datagrams such that the second datagram is ready for communication at a different time than any of the first plurality of datagrams (cell no. 2 is transmitted at a different time than any of cells no. 1, col. 7, 19-23 and 38-42).

Per **claims 2, 16,** and **29**, Petersen teaches that ***a predetermined amount of time*** (31.25 microseconds) approximately equals to ***a communication time*** (31.25 microseconds) of one of the first plurality of datagrams (cell no. 2 is staggered from cell no. 1 in frame 1 by 31.25 (125/4) microseconds, Fig. 5 and col. 7, ll 19-23).

Per **claims 3, 17,** and **31**, Petersen teaches ***a first threshold number*** (4 samples/micro cell no. 1, Fig. 5, col. 7, ll 19-25 and col. 17, ll 6-8 and 13-21) and ***a second threshold*** (4 samples/micro cell no. 2, Fig. 5, col. 7, ll 19-25 and col. 17, ll 6-8 and 13-21).

Per **claims 5, 19,** and **33**, Petersen teaches receiving a portion of the samples of the first input signal over ***a first communication channel*** (TS#1 in Fig. 18 carries sample from telephone T1), and receiving a portion of the samples of the second input signals over ***a second communication channel*** (TS#3 in Fig. 18 carries sample from telephone T3), see col. 15, ll 15-19 and 34-39, and also Fig. 5.

Per **claims 8, 22,** and **36**, Petersen teaches receiving the samples over a bus (time slot stream connecting A/D 54 to TS store 56 as shown in Figs. 17 and 18), the bus oerable to support communication over ***a plurality of communication channels*** (time slot #1-time slot #n) (col. 15, ll 34-40 and 45-48).

Per **claims 9, 23,** and **37**, Petersen teaches that the bus (time slot stream connecting A/D 54 to TS store 56 as shown in Figs. 17 and 18) comprises ***a plurality of windows*** (time slots) and establishing ***an active channel*** (time slot #1 carrying sample for telephone set 1) using one of the windows at a time when one (telephone set 1) of communication devices becomes active (col. 15, ll 15-21 and 34-35).

Per **claims 10, 24,** and **38**, Petersen teaches that ***a first active channel*** (time slot #1 carrying sample for telephone set 1) uses ***a first window*** (time slot 1) of the bus (time slot stream connecting A/D 54 to TS store 56 as shown in Figs. 17 and 18) and **another active channel** (time slot #2 carrying sample for telephone set 2) use ***a first available window*** (time slot#2) following ***an occupied window*** (time slot #1) of the bus (col. 15, ll 15-21 and 34-37).

Per **claim 12**, Petersen teaches generating the samples of the first and seccond input signals (col. 15, ll 15-21 and 34-36).

Per **claims 14, 27,** and **41**, Petersen teach that each of the ***datagrams*** (PR-PDU-cells) comprises ***an ATM cell*** (an ATM cell of 53 bytes) containing ***a predetermined number of samples*** (number of time slots contained in VC-PDUs, col. 19, ll 29-32) (Fig. 26 shows a PR-PDU-cell of 56 bytes comprising an ATM cell where the user data are contained in different time slots, which, in the case, belong to the same connection, col. 18, ll 47-49, and col. 19, ll 33-36).

Per **claim 30**, Petersen teaches that ***the memory*** (TS store 56 in Figs. 17 and 20) comprises ***a first buffer*** (TS1 in TS store 56) corresponding to ***the first communication device*** (telephone set T1) and ***a second buffer*** (TS3 in TS store 56) corresponding to ***the second communication device*** (telephone set T3) (col. 15, ll 34-37, 47-50, and col. 16, ll 26-29).

4. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen (USPN 5,805,588).

Claim 15 is a system claim corresponding to method claim 1, and is rejected under the same reason set forth in the rejection of claim 1 with an addition that Petersen does not teach at least one computer readable medium and software encoded on the computer readable medium. However, it would have been obvious to one skilled in the art to include at least one computer readable medium and software encoded on the computer readable medium as recited in the claim. The suggestion/motivation to do so would have been to provide a portable and computer compliant container for the software and to control the functioning of computer hardware and direct its operation as recited in the claim, respectively.

5. **Claims 6, 11, 13, 20, 25-26, 34,** and **39-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen (USPN 5,805,588) in view of Holler (USPN 6,717,955 B1).

Per **claims 6, 11, 20, 25, 34,** and **39,** Petersen fails to teach starting a timer and establishing the second channel/the other active channel (time slot #2 carrying sample for telephone set 2) at or near a time when the timer elapses.

However, Fig. 5 Petersen illustrates that 4 datagrams (micro cells # 1-4 each comprises 4 timeslots) are transmitted every 125 microseconds, i.e. cell#1 carrying samples of telephone T1 is transmitted at time=0 microseconds, and cell#2 carrying samples of telephone T3 is transmitted at time=31.25 microseconds (see also col. 7, ll 19-28) and datagram can be transmitted containing only one sample and letting the remaining timeslots empty (Fig. 8 and col. 7, ll 47-52).

Holler teaches a timer (Timer_CU 51 in Fig. 1) in an analogous art for guaranteeing a maximum holding time of AAL2 packets, before transmission of the carrying ATM cell (col. 5, ll 58-62 and 33-36) which must include starting a timer near a time when an ATM cell is ready for communication, i.e. AAL2 packets are released to fill up an ATM cell, and establishing another ATM cell near a time when the timer elapses.

Therefore, it would have been obvious to one skilled in the art to include a timer of Holler into the teaching of Petersen such that the timer would be started at a time when one of the first plurality of datagrams is ready for communication and the second channel/the other active channel would be established (e.g. transmitted) at or near a time when the timer elapses. The motivation/suggestion to do so would have been to guarantee a maximum holding time of the time slots, before transmission of one of the first datagrams.

Per **claims 13, 26,** and **40**, Petersen fails to teach using different compression methods.

However, Holler teaches using different compression methods (a suitable voice codec and silence removal) (Abstract, ll 6-10).

Given the teaching of Holler, it would have been obvious to one skilled in the art to include different compression methods into the teaching of Petersen. The motivation/suggestion to do so would have been to provide an option for voice compression (Abstract, ll 6-10).

Allowable Subject Matter

6. Claims 4, 7, 18, 21, 32, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 703-306-4821. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
June 8, 2004
NJ

ANDY LEE
PRIMARY EXAMINER